CMP 600-30
ICE MAKER DISPENSER

Installation and Service Manual

Part No. 630460050
11/7/97

THIS DOCUMENT CONTAINS IMPORTANT INFORMATION
This Manual must be read and understood before installing or operating this equipment

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SAFETY INFORMATION

Recognize Safety Information

This is the safety-alert symbol. When you see this symbol on our machine or in this manual, be alert to the potentially of personal injury.

Follow recommended precautions and safe operating practices.

Understand Signal Words

A signal word - ***DANGER, WARNING,*** *OR* ***CAUTION*** is used with the safety-alert symbol. ***DANGER*** identifies the most serious hazards.

Safety signs with signal word ***DANGER*** or ***WARNING*** are typically near specific hazards.

General precautions are listed on ***CAUTION*** safety signs. ***CAUTION*** also calls attention to safety messages in this manual.

Follow Safety Instructions

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Learn how to operate the machine and how to use the controls properly. Do not let anyone operate the machine without instructions. Keep your machine in proper working condition. Unauthorized modifications to the machine may impair function and/or safety and affect the machine life.

CAUTION: Very high discharges pressure is present in system. Quick disconnects on your gages will minimize danger and loss of refrigerant.

CAUTION: Unit requires separate electrical line. See instruction manual for proper fuse size.

WARNING: There must be adequate clearance around ice maker. Allow minimum 6” air intake and 4” air exhaust for air exhaust and panel removal.

NOTE: Unit must be installed per local plumbing and electrical codes. See Installation manual for unit requirements. Failure to do so may cause damage to unit, which would void unit warranty.

NOTE: Using any parts other than genuine factory manufactured parts relieves the manufacturer of all liability.

NOTE: Manufacturer reserves the right to change specifications at any time.

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SPECIFICATIONS

Model	Cond. Unit	VAC	Hz.	Ph.	Wire	Comp. RLA	Fan Amps	GrmtrAmps	Refrig. Oz.	Refrig. Type	Circuit Fuse
CMP600–30A	Air Cooled	115	60	1	2	12	1	2	28	R404A	20

INSTALLATION INSTRUCTIONS

1. REMOVE ICEMAKER FROM CARTON:

   A. Keep unit in the upright position, remove carton and pallet from unit and inspect unit for damage. Upon inspection of unit, if any damage is found, file a claim with carrier immediately.

   B. Locate Startup Card either on outside of container or on plastic liner. Fill in proper information and send one copy to factory, and other copy to Distributor. Postage is prepaid.

2. PREPARATION OF INSTALLATION SITE

   A. The refrigeration system on air cooled units requires airflow, so a well ventilated area should be chosen. A minimum of (6) inches must be maintained, free of any obstruction, for air intake. A minimum of (4) inches clearance is required for air exhaust.

3. WATER INLET HOOK–UP:

   A. **Water Inlet** – Fitting is a 1/4” SAE male flare located at the left rear bottom of the unit. Connect water supply with a 1/4”or larger copper or flexible tubing.

   B. **Water Pressure** – Unless otherwise specified, the unit is designed to operate on water pressures between 10 P.S.I. and 90 P.S.I. (NOTE: for pressures above 90 P.S.I. a regulator must be installed).

   C. **Water Cooled Condensers**

      a. Inlet to modulating valve uses 3/8” FPT. Use separate 3/8” or larger water line.

      b. Outlet is 3/8” FPT.

   D. **Filters** – Filter/Conditioners are recommended on supply lines to icemakers. Never run the water supply to water cooled Condenser through Filter/Conditioner, it uses up the cartridge unnecessarily and a saturated cartridge can starve the icemaker causing premature component damage. Separate water supplies are recommended.

NOTE: Unit must be installed per local plumbing code.

4. ELECTRICAL SUPPLY

   A. Power Access – Is provided by way of a 7/8” dia. hole in the base. Route incoming power in conduit, to icemaker electrical control box.

   B. Make connections to wires provided in control box and ground lug/screw. Plug unused hole.

   C. **Fused Line** – Should be a dedicated circuit checked and sized according to electrical rating shown on unit nameplate.

NOTE: Unit must be installed per local electrical code.

5. DRAIN CONNECTION

   A. **Bin Drain–** is a ⅝” ID flexible tube located at the left bottom rear of the unit. Extend this line to proper drain.

   B. **Overflow Line–** is a 3/8” ID flexible tube located at the left bottom rear of the unit. Extend this line to proper drain.

6. AUGER ENGAGEMENT

Be certain that auger is fully engaged to lower drive and that extruding head is fully engaged to evaporator.

7. INITIAL START UP, CHECKS & ADJUSTMENT INSTRUCTIONS

NOTE: Do not start unit before completing Installation steps 1–6.

Turn on water supply and main power switch (located on top of electrical box). Make the following system checks:

NOTE: If unit will not start be sure water reservoir is full. Low water safety control must be properly adjusted to start and shut down unit. If water level drops below bottom of reservoir, unit must shut down. Adjustment is made by moving magnet up or down.

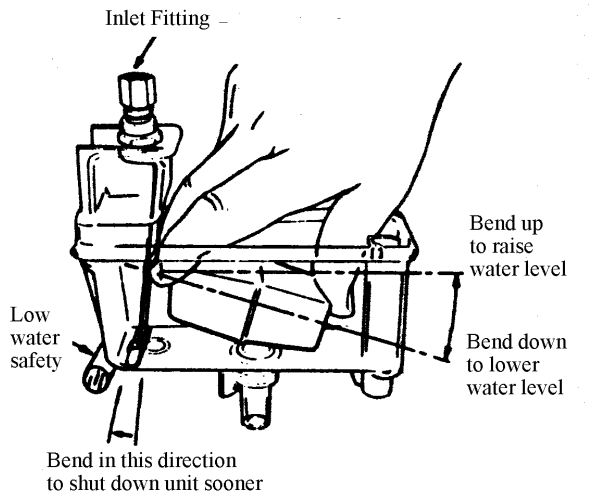

Inlet Fitting
Bend up to raise water level
Low water safety
Bend down to lower water level
Bend in this direction to shut down unit sooner

FIGURE 1. WATER RESERVOIR

Water Level – If necessary adjust Float by bending float arm up or down as needed, push float assembly down until unit stops running. Release float and unit will restart. Keep water in reservoir at level line while unit is in operation. See Figure 1.

Low Water Safety Control – Adjust magnet by bending magnet arm as shown in figure 1 to shut down unit if the water level drops below the line on the side of the reservoir.

Bin Control – Remove four screws from top of bin cover and lift cover so bin control plate can be manually lifted until unit shuts down. Release plate and unit will restart (NOTE: the dispense button must be depressed for 45 seconds before unit will start). Replace screws.

Dispense Switch and Mechanism – By depressing the dispense switch, the dispense mechanism door on the storage bin will open, and agitator will rotate counterclockwise.

NOTE: If any of these checks or adjustments cannot be achieved, refer to Troubleshooting Section of this manual or call our technical support center for assistance.

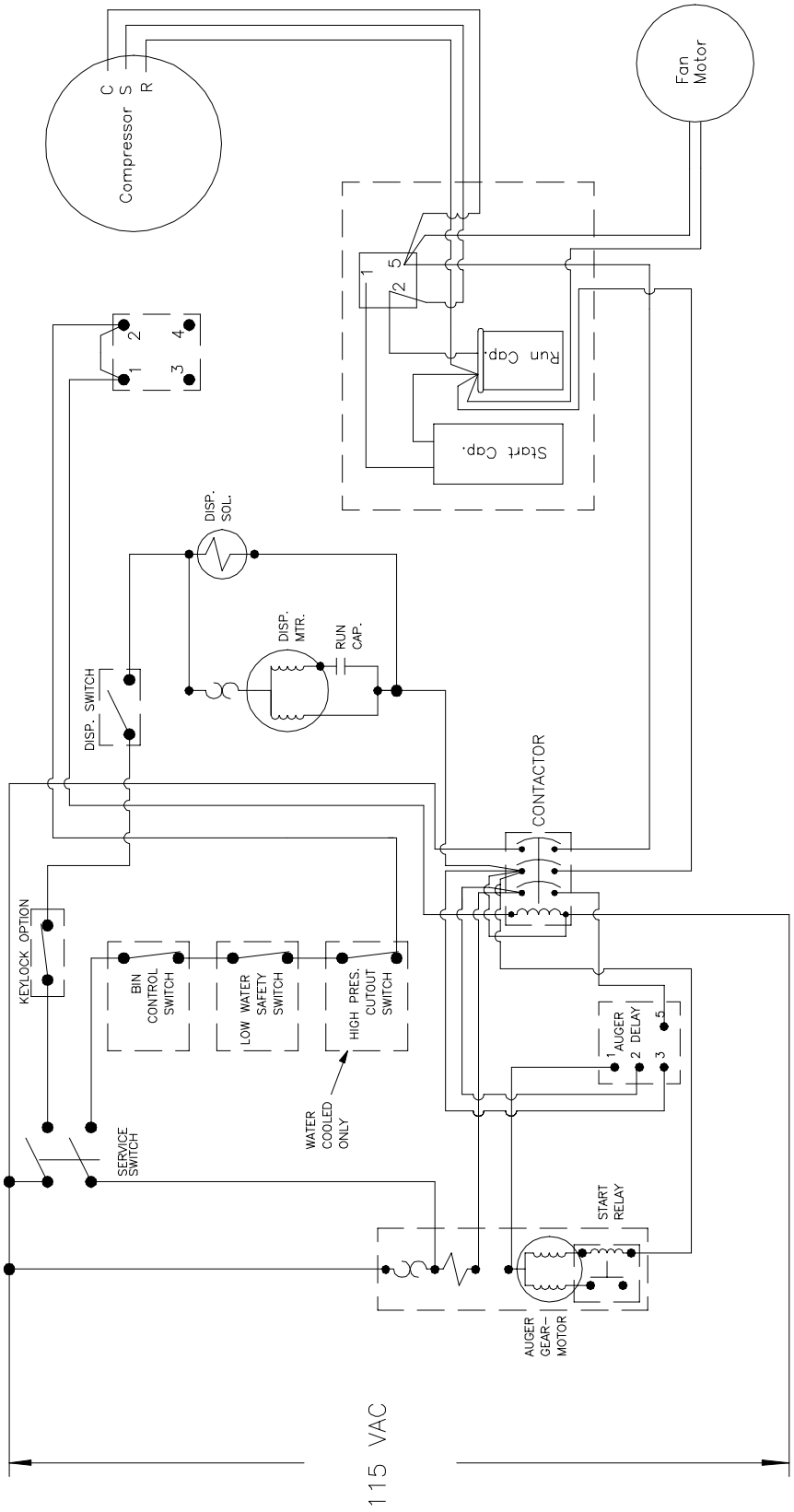


FIGURE 2. SCHEMATIC DIAGRAM

ICEMAKER CLEANING AND SANITIZING PROCEDURES

Do not use any of the ice made during cleaning operations.

Clean and sanitize ice storage area when cleaning icemaker.

1. Turn machine off.
2. Shut off water supply.
3. Remove ice from storage bin.
4. Mix approved cleaner (2 gallons as directed). **Recommended cleaner:** Calgon Corp. or Virginia Chemicals, ice machine cleaner. **Mixture:** 3-1/3 ounces per gallon water. Do not use nickel safe cleaners.
5. Turn machine on and add cleaner solution to water level control (float reservoir) until 2 gallons have been used.
6. Turn on water supply and run machine for 15 minutes.
7. Turn off machine. Remove and discard all ice.
8. Sanitize using household liquid bleach (50 PPM chlorine). **Mixture:** 1 fluid ounce per gallon room temperature water. 2 minute exposure time.
9. Sanitize pre-cleaned inside areas of storage bin liner, door frame, door, as well as exposed surfaces of the evaporator assembly and bin shutoff assembly with sanitizing solution and allow to air dry.

MAINTENANCE

PREVENTIVE MAINTENANCE CAN INCREASE THE TROUBLE FREE LIFE OF YOUR ICE MAKER. FAILURE TO PERFORM PREVENTIVE MAINTENANCE COULD VOID YOUR EQUIPMENT WARRANTY. Many authorized IMI Service Agencies offer service contracts. Contact your local distributor for further information.

MONTHLY

1. Clean the condenser. Use a brush, vacuum cleaner or blow from inside with air or CO_2 gas. If unit is provided with an air filter, clean or replace.
2. Inspect water feed reservoir at least once a month until a definite pattern for cleaning and sanitizing has been established.

QUARTERLY

This is the maximum period of time between cleaning and sanitizing the icemaker. In addition to recommended monthly procedure, and if a more frequent cleaning and sanitizing pattern has not been established, unit must be cleaned and sanitized quarterly.

SEMI–ANNUALLY

Semi–Annually in addition to all previously established service procedures perform the following:

1. Check for water leaks; tube connections, water fillings and lower icemaker water seal.
2. Check drain tubes for clogs and “aged” tubes. Replace if tubes are stained or brittle.
3. Check for signs of condensation. Clean where necessary and replace insulation properly.
4. Check safety circuits for proper operation.

5. Check refrigeration system (see Page 9).
6. Check unit for abnormal noise. Tighten machine and cabinet screws, if necessary.
7. Check white upper bearings on auger assembly. If bearings are less than 1/16” thick, replace See Figure 3.

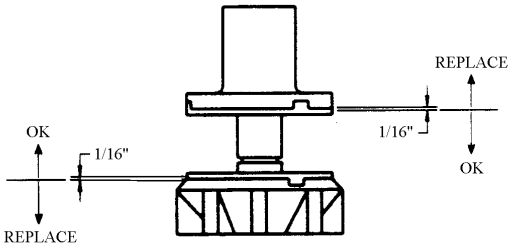


FIGURE 3. AUGER ASSEMBLY

WATER LEVEL CONTROL

HOW WATER LEVEL CONTROL WORKS

When water is introduced through the inlet fitting the float rises, the float pushes against a lever that in turn, forces the poppet assembly against the inlet fitting valve seat that seals the water off. See Figure 1. Before the water inlet is sealed, the safety switch is operated. In the event of a water failure the float would drop down and operate the safety switch to shut off the machine.

If water level control will not shut off and seal at level as indicated, be sure inlet pressure does not exceed recommended factory operating range.

Under ordinary circumstances adjustment should not be necessary providing it was properly adjusted when unit was installed or relocated. If however, the control becomes inoperative, repair or replace. See Start–up Adjustment page 3.

PURPOSE OF WATER LEVEL CONTROL

1. To automatically maintain proper water level in the evaporator when the unit is running and making ice.
2. A safety switch is operated in the event of an interruption in water supply. The switch shuts off the electrical power to the icemaker and its refrigeration system. Switch will reset as soon as cause of water failure has been corrected and proper water level in icemaker has again been reached.
3. The transparent bowl not only provides a visible check of water level, but also is a good guide to the internal conditions which exist within the icemaker assembly itself. (See cleaning procedure.)

TO REPLACE WATER LEVEL CONTROL

1. Shut off the water supply. Shut off the main power switch or unplug the ice dispenser from electrical outlet.
2. Remove the flexible tubing from bottom of water level control and drain water from water level control and evaporator.
3. Remove flexible tubing at bottom of water level bowl connected to the overflow.
4. Hold water inlet fitting with proper tool to prevent it from rotating when disconnecting the water inlet.
5. Remove wing nut holding water control to its mounting bracket. Control can be removed by lifting straight up.

TO REPLACE WATER LEVEL SAFETY SWITCH

1. Shut off main power switch or unplug the ice dispenser from electrical outlet.
2. Unplug Molex connector connecting switch to electrical box.
3. Remove the 2 screws anchoring the water level safety switch to the bottom of the water level control mounting bracket.

ICE LEVEL CONTROL

The ice level control assembly is secured to the top of the ice storage container cover. The cover is secured to the storage container with four screws. The level control switch is operated by a plate assembly located beneath the diaphragm. When the plate assembly is down due to lack of ice in storage container, electrical impulse is sent to compressor, starting the ice making cycle. As ice level increases in storage container, the plate assembly is pushed up. When storage container is full, it deactivate the switch, stopping the compressor and ice making cycle. The operating positions of the switch is fixed, no adjustments are necessary. If switch replacement becomes necessary, simply disconnect cable at connector, remove wires from switch.

REFRIGERATION SYSTEMS

REFRIGERATION SYSTEM ADJUSTMENTS

A complete understanding of the icemaker and hermetic refrigeration system is necessary before any adjustments are made. The refrigeration technician must use high and low side pressure readings, water and air temperatures, plus general conditions of cleanliness to assess the refrigeration system status when making any adjustments.

All icemaker products are tested and adjusted at the factory prior to shipment where the ambient temperature ranges from 65°F to 90°F, depending on the season of the year.

Whenever a new icemaker is initially installed and started–up, it is imperative that the start–up operator make the following checks and readjustments for local conditions.

EXPANSION VALVE

You will find a thermal expansion valve on Wilshire ice makers, which is used to control the amount of refrigerant flowing through the evaporator. Improperly installed or defective expansion valves may cause low production, soft ice, squeaking from evaporator and excessive load inside evaporator.

By using general refrigeration trouble shooting along with the pressure charts, you can easily determine whether or not the expansion valve is working properly.

ADJUSTMENT AND TROUBLESHOOTING

When troubleshooting the expansion valve, you must;

1. Be sure you have adequate water flowing into the evaporator, a clean and properly ventilated condenser, and the system is properly charged and free of any restrictions. Also be sure compressor is operating properly.

2. Take reservoir water temperature and air temperature from condenser inlet and determine at what pressure unit should be running. On machines equipped with thermostatic valve there is NO adjustment. If correct pressure cannot be obtained, be sure system has time to stabilize, 10–15 minutes.

3. Be sure sensing bulb is located at outlet side of evaporator about 3–4 inches away from evaporator and be sure to insulate well and clamp tightly to tubing. If system pressures are still not adequate, take a second water and air temperature reading and go over other parts of the system for possible problems. If proper charge is questionable evacuate and recharge to nameplate and leak check. If valve still malfunctions replace valve.

Use general refrigeration system practices when replacing and recharging unit. After new valve is in place, go through previous monitored adjustments and troubleshooting to be sure valve is functioning properly.

NOTE: On water cooled units adjust condenser modulating valve before troubleshooting expansion valve.

CAUTION: Very high discharge pressure is present in system. Quick disconnects on your gages will minimize Danger and loss of refrigerant. Comply with federal regulations for reclaiming refrigerant.

TEMPERATURE / PRESSURE CHARTS *

CMP600–30

Refrigerant Type R404A	± 10 lb. Discharge Pressure Water Temperature		
Air Temp.	**40**	**65**	**90**
50	174	177	180
60	202	205	208
70	230	233	236
80	265	269	272
90	300	304	307
100	328	334	340

NOTE: The thermostatic expansion valve is non–adjustable on all models

CONDENSER MODULATING VALVE (Water Cooled Only)

The reason for using a water modulating valve is to supply the correct amount of water to the condenser to maintain the proper operating pressure in the refrigeration system high side. The flow of water through the valve is increased as the high side pressure rises and decreases as high side pressure lowers.

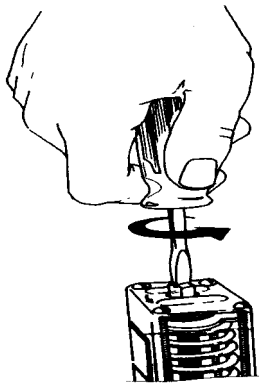


FIGURE 4. ADJUSTMENT SCREW

To calibrate the amount of water flow with the refrigeration system high side pressure, turn adjustment screw located on end of valve opposite of bellows See Figure 4. Turn screw counterclockwise to raise opening point. Opening point of valve should be set to maintain proper operating pressure in refrigeration system high side. Refer to Pressure Chart on Page 10. Closing point of valve should be set low enough to close valve during compressor stand by periods.

NOTE: Cold water will absorb more heat faster than warm water. The water flow will therefore automatically increase as inlet temperature increases.

CONDENSER MODULATING VALVE REMOVAL

1. Disconnect power to unit, then shut off water supply to condenser and reclaim refrigerant from system.
2. Remove inlet water line from Condenser modulating Valve. Also remove tube from refrigerant high side line.

3. Remove Condenser Modulating Valve and bracket from unit.
4. Remove valve from bracket.
5. Replace Condenser Modulating Valve by reversing Steps 2 thru 4. Then pull system into vacuum.
6. Recharge unit with refrigerant per nameplate.
7. Turn power and water On to unit.
8. With unit running adjust modulating valve to proper setting.
9. Go through a complete system check.

GEAR MOTOR

The gear motor is equipped with a start relay and a manual reset overload. When current is applied, the relay energizes and completes the circuit to the start winding. The motor reaches a predetermined speed and the relay drops out, disconnecting the start winding. The run winding remains in the circuit as long as current is applied.

The purpose of the overload is to automatically shut off the motor in the event of a mechanical bind of the transmission, an overload condition within the evaporator or an electrical malfunction. It does this by sensing amperage draw. If the motor stalls the start relay would energize and stay energized. The amperage would surge to 5 to 6 times greater than normal draw. In this event the overload would shut off the transmission in 4 to 8 seconds.

If the motor is subjected to an abnormal load, but does not reach stall condition, the overload will react, but over a greater period of time. The reaction time depends upon the amperage to which it is subjected.

The overload, through the safety circuit, also shuts off the compressor.

Refer to Troubleshooting Guide.

TROUBLESHOOTING

IMPORTANT: Only qualified personnel should service internal components or electrical wiring.

TROUBLESHOOTING GEAR MOTORS

Basically, Gear motor problems can be narrowed down to three areas of checkout.

THE GEARMOTOR WILL NOT RUN

1. No voltage to the transmission terminals – check external circuit.
2. Low voltage – check supply.
3. Problems in the gear motor electrical circuit. See Figure 5

THE GEARMOTOR STARTS BUTS TRIPS REPEATEDLY ON THE OVERLOAD PROTECTOR:

1. Voltage – high or low voltage can cause the overload to trip.
2. High Gear motor amperage draw, see Specification Chart for ratings and Troubleshooting Guide.

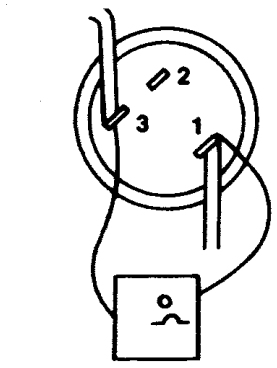


FIGURE 5. OUTPUT SHAFT

THE MOTOR RUNS BUT OUTPUT SHAFT DOES NOT ROTATE:

1. Replace defective gear motor.

CAUTION: Be sure unit is disconnected from the power source. Disconnect the transmission cable.

OVERLOAD CHECK:

2. Allow motor to cool and reset overload if necessary.

3. Remove motor end bell and stator, if necessary.

4. Check terminals 1 and 3 on overload. No continuity replace overload. Use a volt–ohm meter. See Figures 5 and 6.

MOTOR CHECK:

The resistance readings on the windings will be between 5 to 25 ohms. A meter capable of these low readings must be used. The Start Relay cover must be removed. **NOTE:** Gear motor and related components can be checked from Pin Connector. See Figures 5 and 6.

If no continuity on start or run winding test, replace stator. If continuity on grounded motor test, replace stator.

INSTALLATION AND SHAFT SEAL REPLACEMENT (See Figure 6)

1. Place shaft seal locator seat over gear motor output shaft, embossed side down, and push down until shaft seal seat rests flush on top of gear motor.

2. Place rubber coated ceramic seal (important: ceramic face up) over output shaft and push down until seal rests on top of the shaft seal seat. (Lubricate rubber on ceramic seal with [#06195] rubber lubricant.)

3. Place shaft seal with carbon face down(spring up) over output shaft and push (gently) downward until seal rests on carbon face of the output shaft seal.

4. Push down on the washer compressing the spring on the output shaft seal. While holding the seals (down) in place slide the E–ring into the groove on the output shaft.

AUGER & EXTRUDING HEAD REMOVAL

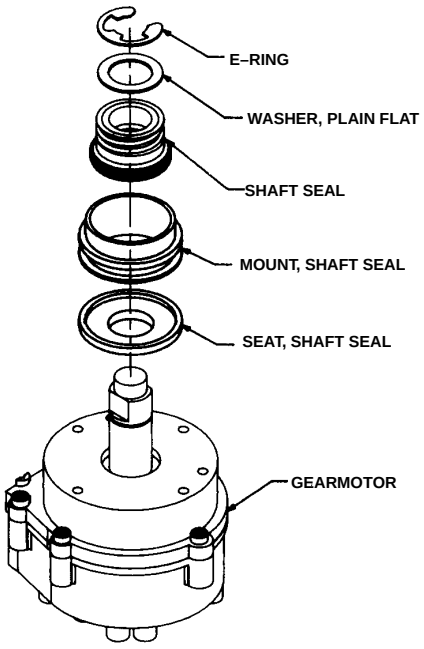


FIGURE 6. SHAFT SEAL REPLACEMENT

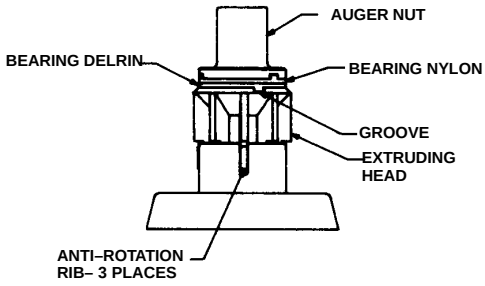


FIGURE 7. EXTRUDING HEAD

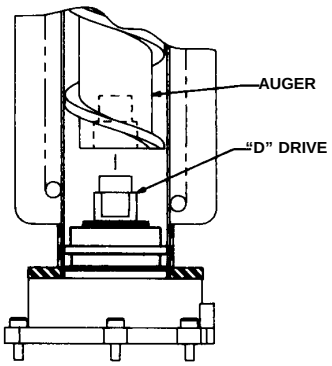


FIGURE 8. AUGER

AUGER & EXTRUDING HEAD REMOVAL

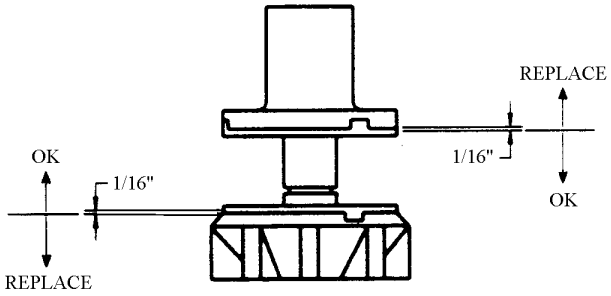


FIGURE 9. UPPER NUT AND BEARING

The upper bearings located on top of the auger is used to absorb the force between the auger and extruding head.

The bearings are 3/32” thick. When they wear below 1/16” they should be replaced. Bearings to be inspected for wear during quarterly maintenance. See Figure 9.

TO REPLACE BEARINGS

1. Dispense all ice from unit.
2. Disconnect unit from electrical power.
3. Remove panels.
4. Unplug Dispense Motor and Ice Level Switch.
5. Remove four screws holding dispense cover in place.
6. Remove dispense cover assembly.
7. Use an open end wrench on auger nut connected to bearing and turn and turn counterclockwise to remove assembly.
8. Remove worn bearings. Replace with new bearings and then reinstall assembly.

NOTE: If auger turns with nut, remove cover on top of gear motor stator and hold rotor while loosening nut.

9. Reconnect power to icemaker.

TROUBLESHOOTING COMPRESSOR

Basically the compressor problems can be narrowed down to three areas of checkout–

1. THE COMPRESSOR WILL NOT RUN
   - A. No voltage to the compressor terminals – check circuit.
   - B. Low voltage – below 90% of nameplate rated voltage.
   - C. Problems in the compressor electrical circuit. See Electrical Checkout instructions.
2. THE COMPRESSOR STARTS BUT TRIPS REPEATEDLY ON THE OVERLOAD PROTECTOR
   - A. Check for proper fan operation and clean condenser.
   - B. Check the compressor suction and discharge pressures.

C. Voltage – The voltage should be within 10% of the rated nameplate voltage.

D. High compressor amperage draw, it should never exceed 120% of the rated nameplate amperage. See Electrical Checkout Instructions.

3. THE COMPRESSOR RUNS BUT WILL NOT REFRIGERATE

A. Check the compressor suction and discharge pressures. See Chart on Page 10.

ELECTRICAL CHECKOUT

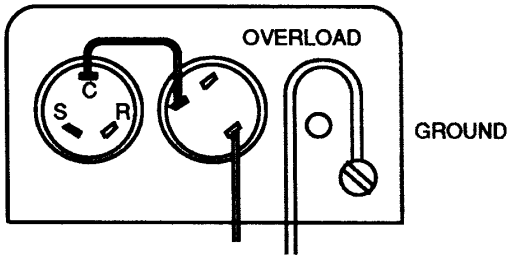


FIGURE 10. ELECTRICAL BOX

1. Be sure the unit is disconnected from the power source. Remove the compressor electrical box cover. Check for obvious damage and loose wires.

2. Disconnect the fan motor leads. Since capacitors store energy, short the capacitor with a screwdriver. This will prevent shocks.

3. Disconnect the compressor terminal wires.

OVERLOAD CHECK – (See Figure 5)

4. Using a volt–ohm meter check the continuity across the overload, contacts #1 & #3. If none, wait for unit to cool down and try again. If still no continuity, the overload protector is defective and should be replaced.

COMPRESSOR CHECK – (See Figure 10)

The resistance readings on the windings will be between 0.25 and 10.00 ohms, a meter capable of these low readings must be used.

5. Check between ”C” & ”R.” Replace compressor if there is no continuity as the run windings are open.

6. Check between ”C” & ”S.” Replace the compressor if there is no continuity as the start windings are open.

7. Check between ”C” & ”R”, or ”S” and shell of the compressor. If there is continuity replace the compressor as the motor is grounded.

8. Check between screw terminal on the overload and ”C” on the compressor. Check and repair the lead or connections if there is no continuity.

CAPACITOR CHECK

9. Check or replace start capacitor, disconnect bleed resistor before checking for shorted capacitor.

10. Check or replace run capacitor (if supplied) check or shorted capacitor or either terminal grounded to case.

SAFETY CONTROLS

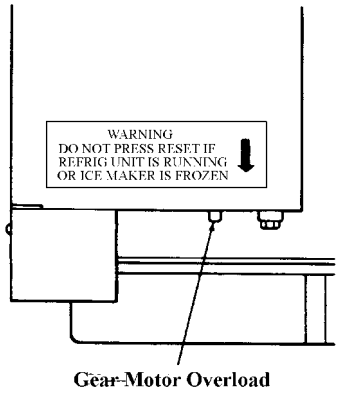


FIGURE 11. GEAR MOTOR THERMAL OVERLOAD

Your Icemaker unit has several safety and control devices incorporated into its design.

WARNING: None of the below described devices should ever be ”bypassed” to allow the unit to function.

The safety and control system shut–off devices are:

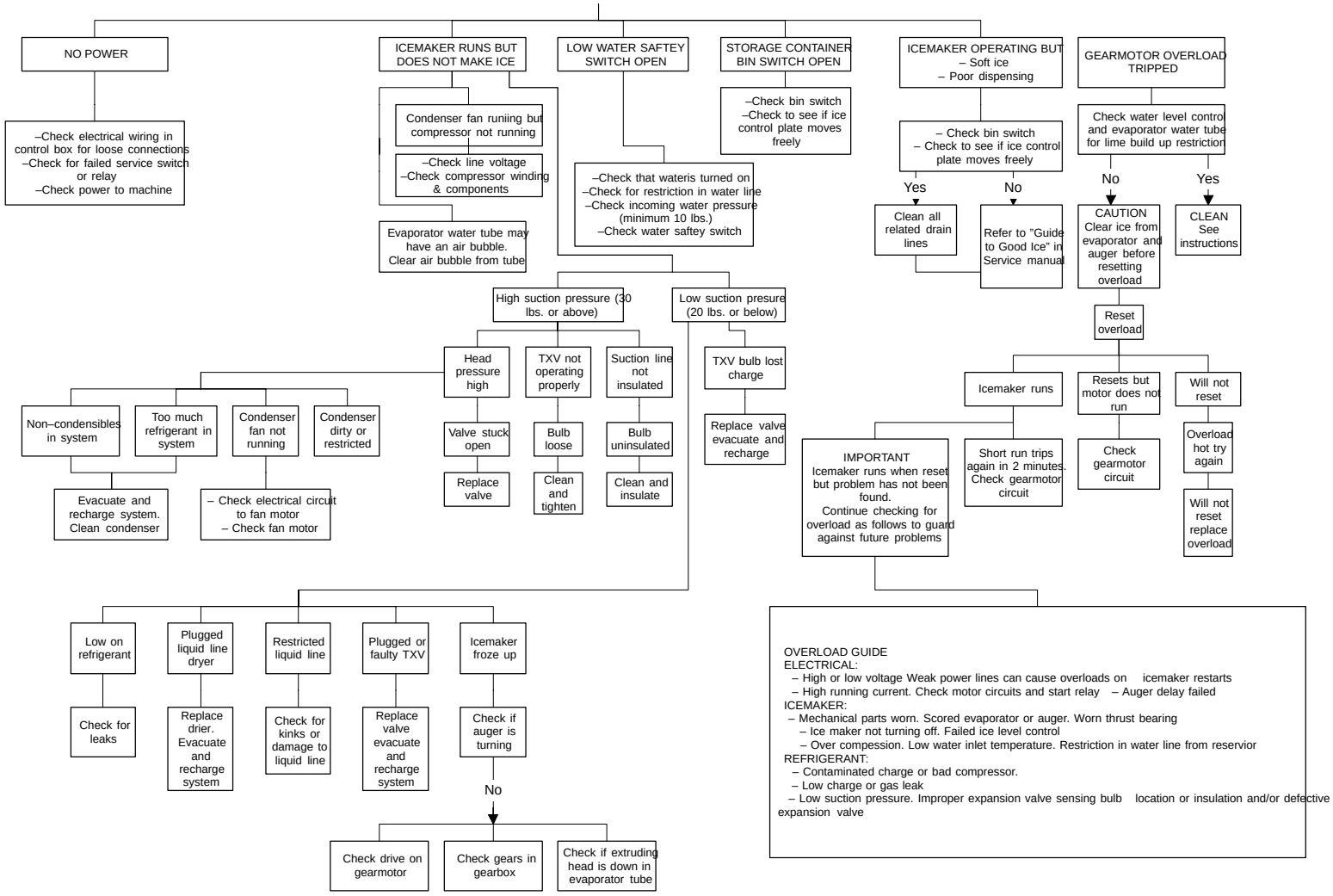
1. Low water shut off reed switch located in icemaker float assembly. (Automatic reset type).
2. Gear motor thermal overload, manual reset type (red button on motor). See Figure 11.
3. Compressor thermal overload, automatic reset type.
4. Main service switch located on top of the control box.
5. Hopper shut–off.
6. High pressure cut out (water cooled only).

WARNING: Do not reset gear motor overload if ice is present in the evaporator.

GUIDE TO GOOD ICE

CUSTOMER COMMENTS	CHECK ICEMAKER LOCATION CONDITIONS FIRST	CHECK ICEMAKER
It runs but the ice is too soft. The icemaker is not producing enought ice. The ice is too wet.	Under compression Proper air flow for condensing system Location too close to high temp units such as coffee urns, deepfryers, grills etc. Supply water conditions. Water too warm (above 90°F) Water artificially softened above 262 PPM sodium chloride. Normal water supply too high.	Use gages for checking suction and head pressures. See manual for correct reading and conditions. Check water level for proper adjustment and restrictions. See Manual. Check evaporator assembly for worn parts, bearings, scored evaporator and, bad expansion valve, etc.
It makes too much noise. (with this comment the ice is usually extremely hard and larger thant normal).	Over Compression Check to see if nois objection objections is normal fan and air flow noise. Water supply conditions. Water too cold (below 50°F) (Possibly running from Pre-cooler).	Obstructions partially blocking ice exit from top of evaporator. Check fan and fan shroud. Check for loose parts and screws rattling. Check evaporator assembly for worn parts, bearings, scored evaporator and auger, bad expansion valve etc.

TROUBLESHOOTING CHART – ICEMAKER NOT OPERATING


NO POWER
–Check electrical wiring in control box for loose connections
–Check for failed service switch or relay
–Check power to machine
ICEMAKER RUNS BUT DOES NOT MAKE ICE
Condenser fan runiing but compressor not running
–Check line voltage
–Check compressor winding & components
Evaporator water tube may have an air bubble.
Clear air bubble from tube
LOW WATER SAFTEY SWITCH OPEN
–Check that wateris turned on
–Check for restriction in water line
–Check incoming water pressure (minimum 10 lbs.)
–Check water saftey switch
STORAGE CONTAINER BIN SWITCH OPEN
–Check bin switch
–Check to see if ice control plate moves freely
ICEMAKER OPERATING BUT
– Soft ice
– Poor dispensing
– Check bin switch
– Check to see if ice control plate moves freely
Yes
No
Clean all related drain lines
Refer to "Guide to Good Ice" in Service manual
GEARMOTOR OVERLOAD TRIPPED
Check water level control and evaporator water tube for lime build up restriction
No
Yes
CAUTION
Clear ice from evaporator and auger before resetting overload
CLEAN
See instructions
Reset overload
High suction pressure (30 lbs. or above)
Low suction presure (20 lbs. or below)
Head pressure high
TXV not operating properly
Suction line not insulated
TXV bulb lost charge
Non–condensibles in system
Too much refrigerant in system
Condenser fan not running
Condenser dirty or restricted
Valve stuck open
Bulb loose
Bulb uninsulated
Replace valve evacuate and recharge
Evacuate and recharge system. Clean condenser
– Check electrical circuit to fan motor
– Check fan motor
Replace valve
Clean and tighten
Clean and insulate
Icemaker runs
Resets but motor does not run
Will not reset
IMPORTANT
Icemaker runs when reset but problem has not been found.
Continue checking for overload as follows to guard against future problems
Short run trips again in 2 minutes. Check gearmotor circuit
Check gearmotor circuit
Overload hot try again
Will not reset replace overload
Low on refrigerant
Plugged liquid line dryer
Restricted liquid line
Plugged or faulty TXV
Icemaker froze up
Check for leaks
Replace drier. Evacuate and recharge system
Check for kinks or damage to liquid line
Replace valve evacuate and recharge system
Check if auger is turning
No
Check drive on gearmotor
Check gears in gearbox
Check if extruding head is down in evaporator tube
OVERLOAD GUIDE
ELECTRICAL:
– High or low voltage Weak power lines can cause overloads on icemaker restarts
– High running current. Check motor circuits and start relay – Auger delay failed
ICEMAKER:
– Mechanical parts worn. Scored evaporator or auger. Worn thrust bearing
– Ice maker not turning off. Failed ice level control
– Over compession. Low water inlet temperature. Restriction in water line from reservior
REFRIGERANT:
– Contaminated charge or bad compressor.
– Low charge or gas leak
– Low suction pressure. Improper expansion valve sensing bulb location or insulation and/or defective expansion valve

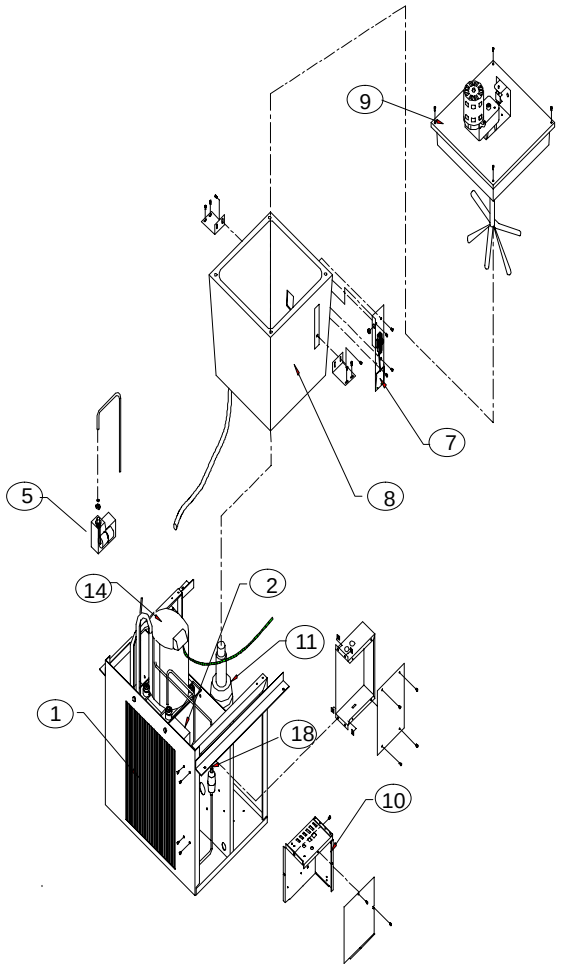


FIGURE 12. REFRIGERATION FRAME ASSEMBLY CMP 600–30 (EXPLODED VIEW) AND PART LIST

Item No.	Part No.	Name
1	638004204	Condenser – (Air Cooled)
	638036272	Condenser – (Water Cooled)
2	638004285	Shroud – Fan
3*	630900310	Fan Blade
4*	638004391	Bracket–Fan Mounting
5	638004643–04	Water Level Control
6*	638008646	Fan Motor Asm. (115V)
*	638008943	Exhaust Fan (Water Cooled Units)
*	638033058	Mounting Bracket, Exhaust Fan
7	638031108	Dispense Mechanism (115V)
8	638031110	Storage Bin
9	638031494	Ice Level Control (115V)
10	638031715–03	Electrical Box Asm. (115V)

Item No.	Part No.	Name
11	638090630	Front End Asm. 600–30 (115V)
12*	638090021	Valve, Water Regulating (Water Cooled)
13*	638009755	Pressure Switch (Water Cooled)
14	638090221	Compressor(115V)
15*	638090222	Start Relay(115V)
16*	638090224	Start Cap(115V)
17*	638090223	Run Cap(115V)
18	638004303	Drier

* = Not shown

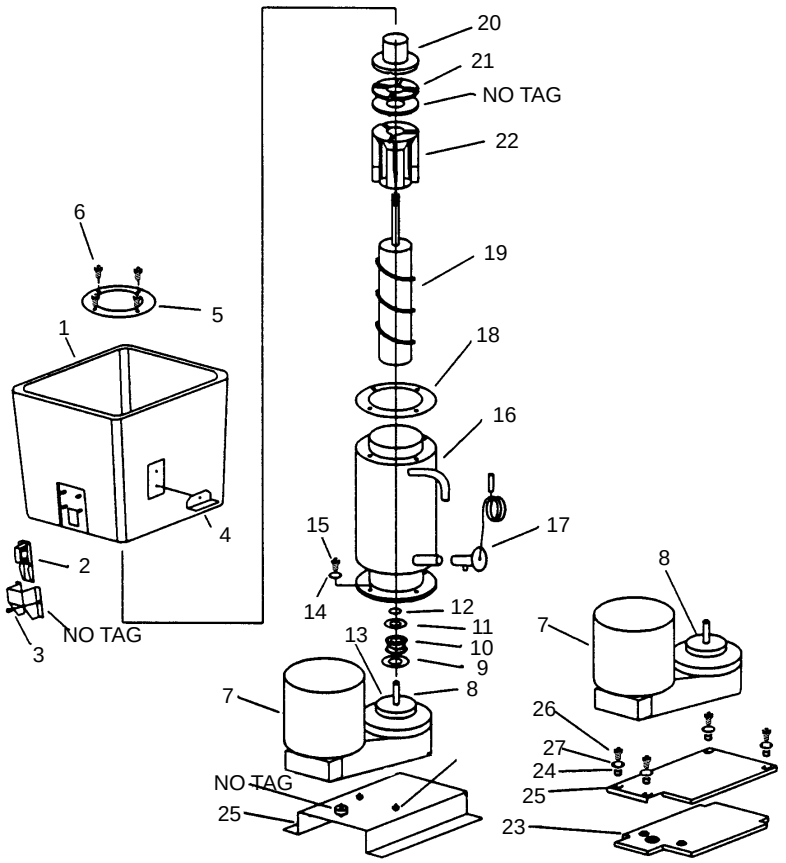


FIGURE 13. BIN AND FRONT END ASSEMBLY CMP 600–30 (EXPLODED VIEW)

Item No.	Part No.	Name
1	638031110	Storage Bin Assembly
2	638031108	Dispense Mechanism (115V)
3	638007201–03	Nut #8–32 ESNA
4	630200331	Clip, Retainer
5	638031017	Retainer Ring
6	161179001	Screw 1/4–20 X 3/4 HHMS
7	638090050	Gear motor (115V) w/ item2 9–14
*	638011645	Cable Asm, Gear Motor, 5–Wire,115V
8	638090215	Shaft Seal Mount
9	638031027	O–Ring 3/16 X 1 1/2
10	638090051	Seal–Shaft Mechanism
11	638007301–030	Washer Lower
12	638090053	E – Ring
13	638090216	Shaft Seal Seat
14	16883300	Washer–Lock, 1/4 Split

Item No.	Part No.	Name
15	16117901	Screw, 1/4–20 X 3/4 Lg.
16	638031719–001	Evaporator Assembly
17	638090226	Expansion Valve
18	638031021	Gasket, Hopper/Evaporator
19	638090213	Auger, D–Drive
20	638090211–002	Auger Nut
21	638090219	Bearing–Nylon
22	638090217	Extruding Head Assembly
23	638095111	ISO–Pad
24	638004442	Spacer
25	638031517	Bracket Front End Assembly
26	638007972–03	Screw #10 X 3/4 Type”B” HHWF
27	638000845	Washer Flat
28	638090220	Bearing–Delrin

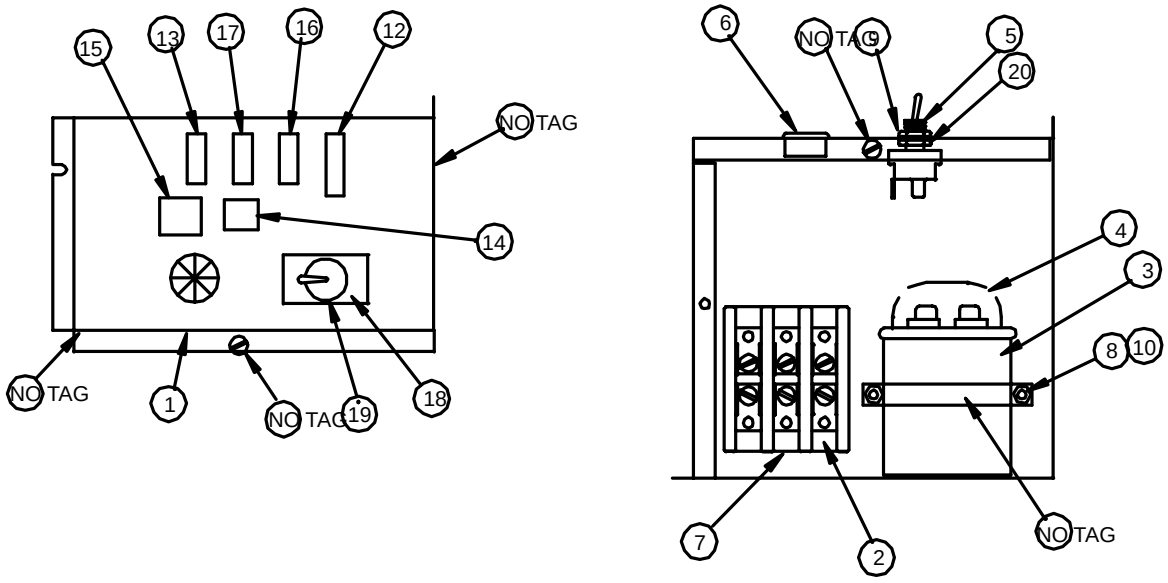


FIGURE 14. ELECTRICAL BOX ASSEMBLY EXPLODED VIEW AND PART LIST

Item No.	Part No.	Name
1	638031001	Electrical Box
2	638090052	Contactor, 3 Pole, (115V 60Hz)
3	638031003	Capacitor, Run (115V Only)
4	638033044	Insulation Boot
5	638004791	Switch, Toggle
6	63800361 1	Bushing, Universal
7	638007030–08	Screw, #8 X 3/4”
8	63807030–02	Screw, #6–32 X 1/4”
9	638007214	Nut, 15/32–32 Hex Lock
10	638007204–02	Nut, #6–32 Keps

Item No.	Part No.	Name
11	638031084	Cover Electrical Box (IMD600–30)
12	638007904–03	Housing–2 Circuit Recept. Red
13	638007903–01	Housing–3 Circuit Recept.
14	638007948–01	Housing–4 Circuit Recept.
15	638007902–01	Housing–6 circuit Recept.
16	638007904–01	Housing–2 Circuit Recept.
17	638007904–05	Housing–2 Circuit Recept. Blue
18	638004792	Indicator Plate
19	638007303–04	Lock Washer
20	638007214	Nut
21*	638031498	Auger Delay (115V)

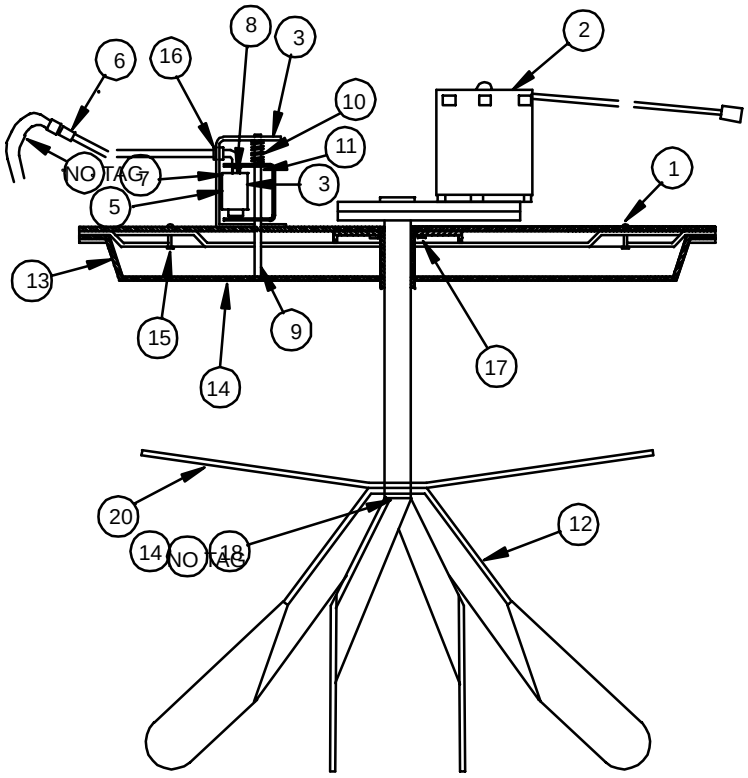


FIGURE 15. ICE LEVEL ASSEMBLY EXPLODED VIEW AND PARTS LIST
PART NOT 31494–001

Item No.	Part No.	Description
1	638031077	Bracket Switch Mounting
2	63831493–001	Dispense Motor Asm. (115V)
3	63807264–02	Nut Tinnerman Twin
4	63831011	Bracket Switch
5	63831156	Switch Ice Level
6	63811396	Bin Control Cable
7	63807308–01	Washer Fiber
8	63807009–10	Screw #6–32 X 1–1/4”
9	63831010	Rod, Actuator
10	63831014	Spring Return
11	63807337–02	Retainer ”E”–Ring
12	63831078	Agitator Arm

Item No.	Part No.	Description
13	63831150	Diaphragm
14	63807088–03	Screw, 1/4–20 X 1/2”
15	63807002–03	Screw, #6–32 X 3/8
16	63801026	Strain Relief
17	63807069–02	Screw, #10–32 X 1–1/4”
18	63807301–18	Washer
19	63807051–02	Screw, #10–32 X 3/8”
20	63831159	Upper Agitator Arm
21	63831076	Top Cover, Inside
	63831075	Top Cover, Outside

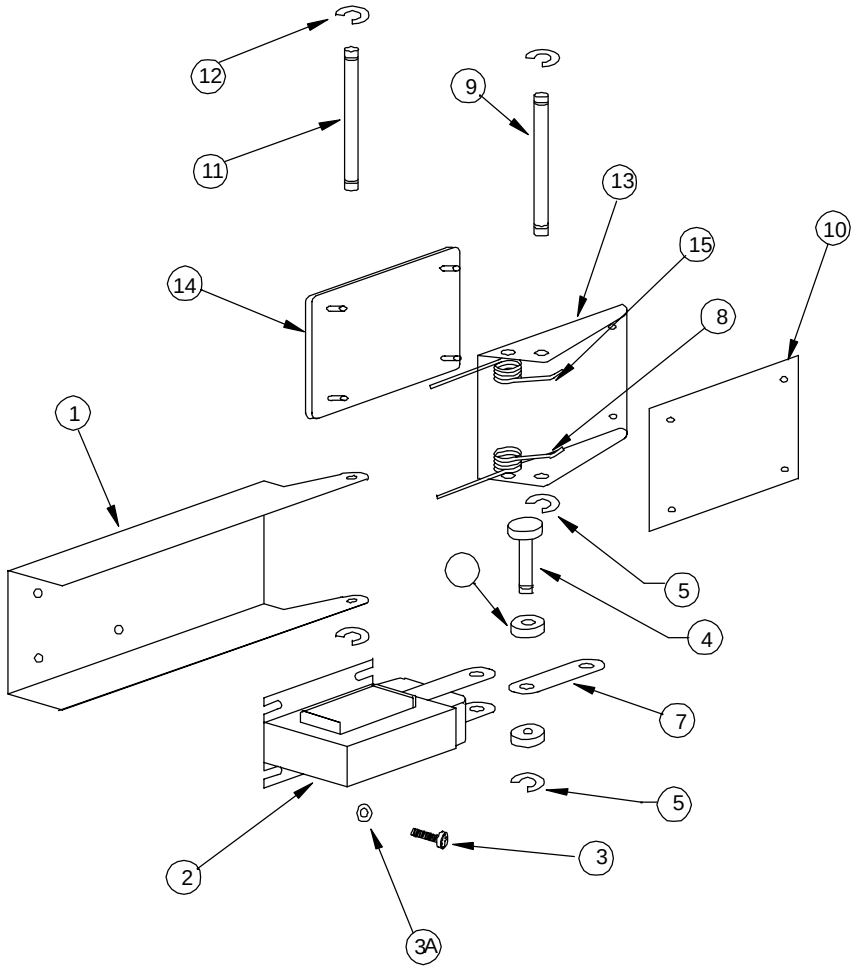


FIGURE 16. DISPENSE MECHANISM ASSEMBLY EXPLODED VIEW AND PARTS LIST

Item No.	Part No.	Name
1	638031035	Bracket, Solenoid Mounting (115V)
2	638010081	Solenoid (115V)
3	638007051–02	Screw, #10–32 X 3/8"
A	638007304–01	Washer, #10 Ext. Tooth Lock
4	638031007	Pin, Linkage
5	638007337–02	Retainer, "E"–Ring
6	638000981	Spacer
7	638031006	Linkage (115V)

Item No.	Part No.	Name
8	638004443	Spring, Torsion Lower
9	638004417	Pin, Drive
10	638031096	Insulation, Door
11	638004416	Pin Pivot
12	638007338–01	Retainer Ring
13	638031036	Door
14	638031002	Gasket, Door
15	638004418	Spring, Torsion Upper

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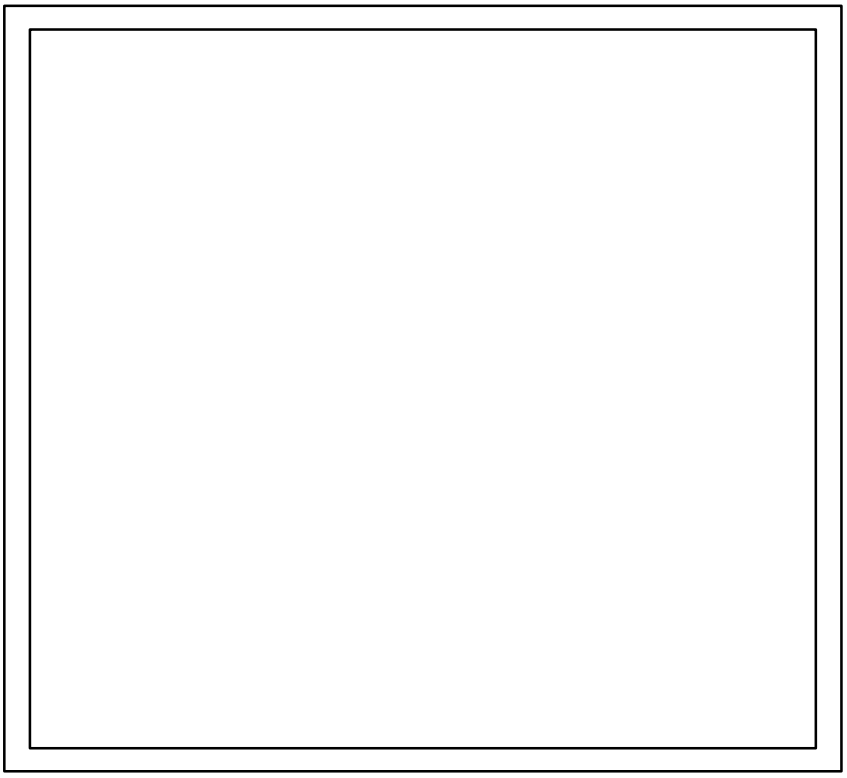

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